

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO.  | FILING DATE       | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|--|-------------------|----------------------|-------------------------|------------------|--|
| 10/676,989   | 09/30/2003        | Young-Nam Yun        | 1190860-991270          | 7709             |  |
| 26379 7590 06/15/2005 DLA PIPER RUDNICK GRAY CARY US, LLP 2000 UNIVERSITY AVENUE |                   |                      | EXAM                    | EXAMINER         |  |
|  |                   |                      | VU, I                   | VU, PHU          |  |
|  | TO, CA 94303-2248 |                      | ART UNIT                | PAPER NUMBER     |  |
|  |                   |                      | 2871                    |                  |  |
|  |                   |                      | DATE MAILED: 06/15/2005 |                  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | <del> </del>  |  |  |  |  |  |
|---|---|--|--|--|--|--|
| Office Action Summary   |   | Application No.  | Applicant(s)   |  |  |  |
|   |   | 10/676,989   | YUN ET AL.   |  |  |  |
|   |   | Examiner   | Art Unit   |  |  |  |
|   |   | Phu Vu   | 2871   |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply  |   |  |  |  |  |  |
| THE - Exte after - If the - If NC - Failu Any   | ORTENED STATUTORY PERIOD FOR REPLY MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. In period for reply specified above is less than thirty (30) days, a reply of period for reply is specified above, the maximum statutory period of the toreply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | 36(a). In no event, however, may a reply be tim<br>y within the statutory minimum of thirty (30) days<br>vill apply and will expire SIX (6) MONTHS from<br>, cause the application to become ABANDONEI | nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133). |  |  |  |
| Status  |   |  |  |  |  |  |
| 1)⊠   | Responsive to communication(s) filed on 28 M  | arch 2005.   |  |  |  |  |
| ·   |   | action is non-final.   |  |  |  |  |
| 3)□   | Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  |  |  |  |  |  |
| Disposit  | ion of Claims   |  |  |  |  |  |
| 5)□<br>6)⊠<br>7)□   | 4)  Claim(s) 1-24 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5)  Claim(s) is/are allowed.  6)  Claim(s) 1-24 is/are rejected.  7)  Claim(s) is/are objected to.  8)  Claim(s) are subject to restriction and/or election requirement.  |  |  |  |  |  |
| Applicat  | ion Papers  |  |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |   |  |  |  |  |  |
| 10)   | 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |  |  |  |  |  |
|   | Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |  |  |  |  |  |
| 11)   | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |  |  |  |  |  |
| Priority (  | ınder 35 U.S.C. § 119   |  |  |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |   |  |  |  |  |  |
| Attachmen   | t(s)  |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)   |   |  |  |  |  |  |
| 3) 🔲 Infor  | te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) or No(s)/Mail Date  | Paper No(s)/Mail Da 5) Notice of Informal P 6) Other:  | ate<br>Patent Application (PTO-152)  |  |  |  |

Application/Control Number: 10/676,989

Art Unit: 2871

#### **DETAILED ACTION**

Page 2

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment A (dated 3/28/05)

2. Claims 1-24 is presented for examination.

#### Response to Arguments

Applicant's arguments filed 3/28 have been fully considered but they are not persuasive. Applicant argues that the prior art reference Hinata US Publication No. 2004/0051827 is not applicable under 35 U.S.C. 102(e), however the U.S. filing date of Hinata was June 24, 2003 and applicants filing date is September 30, 2003. Examiner acknowledges the claim for foreign priority however this priority was not perfected as there is was no certified English translation made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The rejections are presented below.

### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Hinata et. al US Pre-Grant Pub. No. 2004/0051827.

Art Unit: 2871

Regarding claim 1, Hinata teaches a back light assembly that generates first light (fig.1 element 161), a liquid crystal display panel including an upper substrate (fig. 1 element 142), a lower substrate facing the upper substrate (fig. 1 element 141), and a liquid crystal layer (fig 1 element 149) interposes between the upper substrate and the lower substrate, the liquid crystal display panel receiving the first light generated from the back light assembly to display an image, a first polarizing plate (fig. 1 element 120) and a selective reflection polarizing plate (fig 1 element 110) disposed on the first polarizing plate, the selective-reflection polarizing plate selectively reflecting an external light, and a second polarizing plate (fig. 1 element 150) disposed on the lower substrate. Regarding claim 13, this claim mirrors claim 1 in method form and does not introduce any additional structure or steps not inherent to claim 1 therefore the rejection follows that of claim 1.

Regarding claim 2 and 14, the reference does not expressly disclose a second polarizing plate polarizes the first light generated light generated from the back light assembly, and the first polarizing plate analyzing a second light that passes through the liquid crystal, however, polarization of the first light generated from the back light is inherent to the limitations of claim since the second polarizer of claim 1 will "polarize" light and is located directly in the path of the second light generated, and regarding the "analysis" of the second incoming light polarization can be considered a form of analysis therefore this limitation is inherent to the reference.

Application/Control Number: 10/676,989

Art Unit: 2871

Regarding claims 4 and 16, the reference teaches the upper substrate includes color filters (fig. 10 element 244) arranged in a matrix shape, and a black matrix (fig. 10 element 243).

Regarding claims 6 and 18, the reference teaches the first polarizing axis of the first polarizer substantially parallel with the selective reflecting polarizing plate (see [0087]).

Regarding claims 10 and 22, the reference teaches a Dual Brightness Enhancing Film as the reflective polarizer (see [0085])

Regarding claims 11-12 and 23-24, the reference teaches a cholesteric liquid crystal polarizer (see [0085]). Cholesteric liquid crystals reflect circularly polarized light. Therefore these limitations are inherent to the reference.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

# Claim 3, 5, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinata.

Hinata discloses all the limitations of claims 3 and 15 except a selective reflection polarizing plate reflecting a portion of external light being over 50%. Hinata discloses all the limitations of claims 5 and 17 except a black matrix consisting of one of aluminum, titanium, chromium, tantalum and a mixture thereof. However, it is conventional in the

Art Unit: 2871

art to create black matrices of aluminum and it reflection rates reflective polarizers are typically over 50%. Conventionality has associated benefits of lower costs and proven effectiveness. Therefore at the time of the invention it would have been obvious to form a black matrix of aluminum and polarization rates greater than 50% in order gain lower costs and proven effectiveness.

Regarding claims 9 and 21, the reference does not disclose a linear selective reflection film however, any linear reflective polarizer can be considered a "linear selective reflection film." Since a reflective polarizer by definition will reflect a portion of the light and select another to transmit and, and a linear polarizer use is conventional one skilled in the art would consider Hinata's reflective polarizer to be linear.

Conventionality has advantages of lower costs, and proven effectiveness. Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in to use a linear reflective polarizer in the invention to gain lower costs and proven effectiveness.

Claims 7, 8, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinata as applied to claim 1 / 13 above, and further in view of Nishio US Pub. No 2002/0075433. Hinata does not disclose the polarization axis of the polarizers being parallel or perpendicular, however it is well-known in the art to configure angle between the polarization axes in order to make a display operate in a "normally white" or "normally black" mode. Nishio also discloses configuration of the polarization angles to change the display mode (see Nishio [0049-0050]). Therefore, at the time of the invention, it would have been obvious to configure the polarization

angles between the two polarizers as necessary to create a display of white or black mode operation.

#### Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu Vu whose telephone number is (571)-272-1562. The examiner can normally be reached on 8AM-5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571)-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/676,989

Art Unit: 2871

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu Vu Examiner AU 2871 DUNGT. NGUYEN PRIMARY EXAMINER